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desired thickness over the top of the mold. During the application of heat and pressure and/or vacuum, the flat sheet material is deformed to assume the configuration comprising the recesses and ridges in the mold surface.

After the sheet material has been accordingly formed and cooled, it may be removed from the mold surface. The formed sheet material may, after trimming, be immediately folded along its hinged portion with the outer or top surfaces of flanges 27 and 28 doubled onto each other to assume the inner surfaces of the container. This folding action results in the valleys 32, 33 and 34 extending outwardly with the ridges 35 and 36 converging inwardly. When the receptacle is closed the hinge assumes an appearance in cross section of a three-leaf clover (FIG. 4). In this folded position the three valleys are partially distorted and elongated but basically unstressed. Thus, ridges 35 and 36 are dimensioned to a length whereby they are not urging against each other. In FIG. 4 these ridges barely touch each other and do not provide any resistance against the butting of surfaces 27 and 28.

It has been found that the natural unstressed position assumed by the hinge is that of FIG. 1 and that there is no significant resisting force against the desired abutment of flanges 27 and 28. Despite the fact that the valleys are molded in the position of FIG. 3, there is an inherent tendency to assume the position of FIG. 4. This can be largely attributed to the reduced thickness of the sheet material in the vicinity of the valleys' apexes. This reduced thickness is caused by the drawing or forming technique which stretches the sheet material a greater distance before it contacts the bottom of the mold recesses 41, 42 and 43. When extruded sheet material is used, it is possible that the lines of extrusion will run parallel to the hinge. The stretching of the material forming the valleys will cause reorientation of these lines whereby they will traverse the hinge and substantially increase the hinge's flex life.

Thus, a light-weight container has been formed which requires no significant assembly time in view of its integral construction. The container has a hinge which will last the normal expected life of the container without tearing. The mating surfaces of the cover and base are flush to each other and can be kept in this position by any of a number of means such as the use of undercut corners. However, the particular container has been designed to remain in a closed condition by the cooperation of four recessed lugs 51 which inwardly protrude from front walls 24 and 25. These lugs are forced against the article to be

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packaged in the container such as a rectangular magnetic tape cassette (not illustrated). The cassette or other article is of such dimensions as to closely approximate the rectangular cavity defined between cover 13 and base 14. Thus, the article serves to maintain the two flanges 27 and 28 in a closed position. It is apparent that the precise dimensions of the valleys and ridges of hinge 23 will vary depending on the thickness of the sheet material and the size of the container. In particular, sheet material thicknesses ranging between five and sixty mils are particularly suitable for this type of hinge construction.

Although only one embodiment of this invention has been illustrated and described, it will be apparent to those with skill in the art that modifications can be made without departing from the spirit of the invention and the scope of the appended claims.

I claim:

1. A hinge integrally joining a pair of flush surfaces of a container formed from a plastic sheet material deformable by heat and pressure, said hinge extending along substantially the full length of a straight side of said container and comprising a pair of outer hollow and parallel valleys outwardly extending along substantially the length of said hinge and connected to said flush surfaces, a middle hollow valley outwardly extending between said outer valleys and connected thereto by a pair of parallel ridges formed with flat surfaces lying in a plane below and parallel to the plane of said flush surfaces, said middle valley being slightly deeper than said outer valleys with all of said valleys having a radius curvature in their initial formed position, and said ridges converging to an adjacent relationship when said pair of surfaces are butted flush to each other.

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